

communications interface based on at least one set of priorities, in which the one set of priorities comprises priorities based on type of information being retrieved. The feature of prioritizing the allocation of communications bandwidth based on the type of information being retrieved can dramatically reduce the latency perceived by a user.

These and other features are neither disclosed nor suggested by Baugher et al..

Baugher et al. is directed to a method and apparatus for reserving system resources to assure quality of service. Baugher et al. determines whether there is bandwidth available for transmitting a file across a communication link to a remote node requesting the file. If bandwidth is available, the bandwidth is reserved and then Baugher et al. open the file for transmission only if the bandwidth is reserved. Comparing the present invention as claimed in claim 2 to Baugher et al., the two inventions are directed to two different allocation systems. Claim 2 claims a computer apparatus which prioritizes communications bandwidths allocation to a plurality of users connections based on the type of information being retrieved. Baugher et al. does not disclose or suggest a priority system, but rather reserves bandwidth based on quality of service parameters associated with a file.

The significance of this difference can be appreciated when reviewing the effects of a new request for a connection. Using the present invention, the processor is configured to allocate communication bandwidth to a user based on at least one set of priorities. As claimed in claim 2, the priority is based on the type of information being retrieved. Therefore, the processor allocates bandwidth according to the type of information being retrieved. However, all of the users are allocated bandwidth. Baugher et al. does not operate in a similar manner, but rather Baugher et al. determines if bandwidth is available before allocation. If bandwidth is available, then Baugher et al. reserves the bandwidth. If bandwidth is not available, then Baugher et al.

generates an error message. Therefore, Baugher et al. allocates bandwidth based on availability, not a priority system. As a result, Baugher et al. fails to disclose or suggest allocating bandwidth based on a priority system.

For these and other reasons, independent claim 2 is patentable over Baugher et al..

Claims 3, 4, 12, 13, and 19-22 are patentable over Baugher et al. for the same reasons as stated for claim 2, failing to disclose or suggest allocating bandwidth based on a priority system. Please note that claims 13 and 20 were rejected for the same reasons as claims 2 and 4 as stated in section 12 of the Official Action dated August 18, 1999.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al. in view of Nielsen (U.S. Patent No. 5,826,031). This rejection is respectfully traversed.

Independent claim 5 is directed to a computer apparatus for allocating communications bandwidth to a plurality of user connection, comprising a bus, at least one communications interface connected to the bus and a processor connected to the bus. The processor is configured to allocate communications bandwidth to the user connections serviced by the at least one communications interface based on at least one set of priorities, in which the one set of priorities comprises priorities based on which part of a document is being transmitted.

Nielsen discloses Applicant's own work related to displaying objects in a web page based on a "PRIORITY" attribute added to the tag for the object (Nielsen, Column 6, lines 13-23). No such attribute is required by Applicant's present invention. The present invention gives priority to different parts of a document based on the parts not on a "PRIORITY" attribute. As claimed in claim 5, bandwidth allocation is based on the different parts of a document, not the attributes inserted in the tags.

Moreover, the hypothetical combination still does not disclose a processor which allocates bandwidth since Nielsen only prioritizes the order of transmission.

For these and other reasons, claim 5 is patentable over the cited art.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al. in view of Natarajan (U.S. Patent No. 5,742,594). This rejection is respectfully traversed.

Independent claim 6 is directed to a computer apparatus for allocating communications bandwidth to a plurality of user connection, comprising a bus, at least one communications interface connected to the bus and a processor connected to the bus. The processor is configured to allocate communications bandwidth to the user connections serviced by the at least one communications interface based on at least one set of priorities, in which the one set of priorities comprises priorities based on user identity.

Natarajan is directed to a method and apparatus for allocating shared bandwidth among a plurality of users. However, Natarajan divides users into two groups which are not based on the user's identity but based on the applications the user is using. As cited by the Examiner, the users consist of real time application users and non-real time application users. Therefore, the hypothetical combination fails to disclose or suggest prioritization based on user identity.

For these and other reasons, claim 6 is patentable over the cited art.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al.. This rejection is respectfully traversed.

Independent claim 7 is directed to a computer apparatus for allocating communications bandwidth to a plurality of user connection, comprising a bus, at least one communications interface connected to the bus and a processor connected to the bus. The processor is configured to allocate communications bandwidth to the user connections serviced by the at least one

communications interface based on at least one set of priorities, in which the one set of priorities comprises priorities based on stored indicia indicating importance of the document.

Claim 7 is patentable for the same reasons stated above, as a result, claim 7 is patentable over the cited art. Moreover, modifying Baugher et al. as suggested by the Examiner goes against the teachings of Baugher et al.. Please see the explanation below for further details.

Claims 9-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al. in view of Kidder et al. (U.S. Patent No. 5,903,735). This rejection is respectfully traversed.

Independent claim 9 is directed to a computer apparatus for allocating communications bandwidth to a plurality of user connection, comprising a bus, at least one communications interface connected to the bus and a processor connected to the bus. The processor is configured to allocate communications bandwidth to server connections serviced by the at least one communications interface based on at least one set of priorities, in which the one set of priorities comprises priorities based on the state of application processes running on the processor.

Kidder et al. is directed to a method and apparatus for transmitting data having minimal bandwidth requirements. Specifically, Kidder et al. is directed to transmitting data which has minimal bandwidth requirements such as data packets used for twitch games. Kidder et al. is directed at transmitting based on an order of transmission where one set of data is transmitted before another set (See claim 1 of Kidder et al.) as might be done when using low and high priority queues.

Therefore since neither Baugher et al. nor Kidder et al. disclose or suggest allocating bandwidth based on at least one set of priorities where the prioritization is based on the state of

application processes running on the processor, the hypothetical combination of references would fail as well.

For these and other reasons, independent claim 9, as well as dependent claims 10 and 11 are patentable over the cited art.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al. in view of Hahne et al. (U.S. Patent No. 5,115,430). Claims 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al. in view of Shaffer (U.S. Patent No. 5,673,253). These rejections are respectfully traversed. Claims 14-16 are believed to be allowable in view of their dependency on claim 12.

Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al.. This rejection is respectfully traversed.

Claim 17 is directed to a method of controlling communications by a process on a computer connected to a network. The method comprises the step of providing an element for allocating communications bandwidth to a plurality of server connections in user by the process based on at least one set of priorities. For the same reasons that are stated above, claim 17 is patentable over the cited art.

Claim 18 is believed to be allowable in view of its dependency on independent claim 17 and for the reason cited for the patentability of claim 9.

Claims 5-7, 9-11 and 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Baugher et al. in view of various cited art. All of these rejections are respectfully traversed.

As stated above, Baugher et al. does not teach bandwidth allocation based on prioritization. Baugher et al. teaches determining whether there is bandwidth available for

transmitting a file across a communication link to a remote node requesting the file and if the bandwidth is available, the bandwidth is reserved and then opens the file for transmission only if the bandwidth is reserved. As stated in column 11, lines 18-28, one of the main advantages of Baugher et al. is that a file may not be opened for transmission until a reservation is made. Baugher et al. does not open the file because opening a file creates a large amount of overhead for the host system. As a result, Baugher et al. helps relieve that burden by not requiring a file opening when resources are not available.

Therefore, modifying Baugher et al. as the Examiner cites in this Official Action is improper because the modifications go against what Baugher et al. teaches. Baugher et al. does not teach bandwidth allocation based on a prioritization, but rather on a reservation system. As a result, one having ordinary skill in the art cannot be presumed to be motivated to modify a reference, i.e., Baugher et al., in a manner antithetic to its disclosed function and objectives, i.e., a reservation system. Please see **In re Fritch**, 972 F. 2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992); **In re Gordon**, 733 F. 2d 900, 221 USPQ2d 1125 (Fed. Cir. 1984); **In re Schulpen**, 390 F. 2d 1009, 157 USPQ 52 (CCPA. 1968).

Moreover, the Examiner is required to identify a particular basis in the applied art upon which to predicate the conclusion that one having ordinary skill in the art would have been realistically motivated to combine applied references to arrive at the claimed invention. **In re Mayne**, 41 USPQ2d 1451 (Fed. Cir. 1997).

Furthermore, the Examiner does not provide a technical reason or motivation to combine these references. There is no shortcoming in either Baugher et al. or the cited art identified by the Examiner that would lead a person of ordinary skill in the art to look to the other for a

solution. Therefore the Examiner has failed to establish prima facie obviousness, and a rejection under 35 U.S.C. §103 is improper.

In view of the above, it is believed that this application is in condition for allowance, and such a Notice is respectfully solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.



Date: November 18, 1999

BY:

Respectfully submitted,

MCDERMOTT, WILL & EMERY

Thomas A. Corrado

Thomas A. Corrado
Registration No. 42,439

600 13th Street, N.W.
Washington, DC 20005-3096
Telephone: (202) 756-8000
Facsimile: (202) 756-8087

WDC99 178644-1.050253.0112